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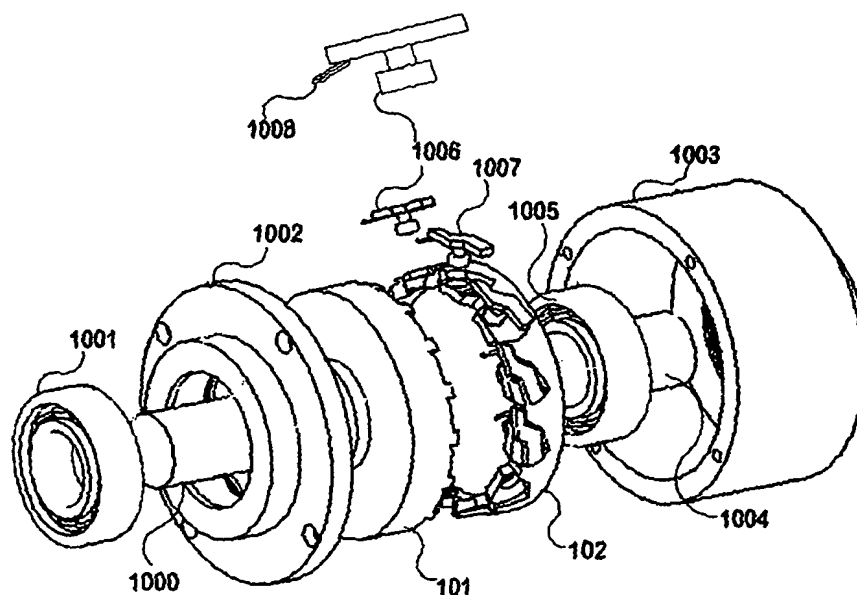
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#### Declarations under Rule 4.17:

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(54) Title: IMPROVEMENTS IN ONE-WAY CLUTCHES



(57) Abstract: One-way clutches having different numbers of pawls (1006, 1007) and pockets in a "vernier" arrangement minimise relative rotation between the two clutch halves (101, 102) in the engagement direction. Noise is also reduced. Directionally sensitive biasing means (1008) rather than springs are used in one-way clutches for extending or retracting inertially balanced swivelling pawls (1006, 1007). In another embodiment, a reversible one-way clutch uses a gear train to drive a worm screw synchronised with teeth on a driven worm gear, when freewheeling. Controlled backlash places the worm in either a contact mode (when engagement occurs) or a non-contact (disengagement) mode when driven in an opposite direction.

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YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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